

Virtual Fixturing

This is a device or tool used for locating and holding a part to be Manufactured or Inspected . Based on the fact that all objects are 3 Dimensional . To Manufacture or Inspect the part properly you need to control the 3 sides of the part .

Common Industry Practice such as Aerospace And Commercial Manufacturers call them Tooling Points , or Datum Target Points . Commonly 3 points on a plane (Primary) , 2 points on a plane (Secondary) , and 1 point (Tertiary) .

Virtual Fixturing is a device with multiple points, having infinite location ability to accommodate different size , shape , and form . While having quick , precise , and repeatable set-ups with out adding or removing anything to fixture .

This is achieved by making these points Virtually float . Using a tooling point (ball) attached to 3 threaded rods achieves fluid movement in 3 planar directions . Also give that same point (ball) 3 points of rotation , that makes that point (ball) the ability to locate Virtually any where on any given plane .

Virtual Fixture is a device with 6 or more points attached to rotating cylinders , mounted on rotating bases which is then mounted on a base plate to give the user infinite location to accommodate any size , shape , or form .